IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NUMBER:	**09/891,793**
FILING DATE:	**June 26, 2001**
FIRST NAMED INVENTOR:	**David J. Ecker**
ART UNIT:	**1645**
EXAMINER NAME:	**Ardin H. Marschel**
ATTORNEY DOCKET NUMBER:	**DIBIS-0003US**
TITLE:	**A SECONDARY STRUCTURE DEFINING DATABASE AND METHODS FOR DETERMINING IDENTITY AND GEOGRAPHIC ORIGIN OF AN UNKNOWN BIOAGENT THEREBY**

I certify that this communication is being deposited with the United Parcel Service in a box addressed to United States Patent and Trademark Office, Customer Service Window, Mail Stop Amendment, Randolph Building, 401 Dulany Street, Alexandria, VA 22314 on the date shown below:

Dated: 6/23/2005 By: Kemlyn Evans
Kemlyn Evans

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT
Under 37 C.F.R. §§ 1.56 and 1.97-98

SIR:

Pursuant to the provisions of 37 C.F.R. §§ 1.56 and 1.97-98, enclosed herewith is PTO Form PTO/SB/08A and PTO/SB/08B listing references for consideration by the Examiner.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be

considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

☐ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;

☒ before the mailing of a first official action after filing of a request for continued examination (RCE) under 37 C.F.R. § 1.114;

☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before that mailing date of the first office action to occur of either: (1) a final action under 37 C.F.R. § 1.113; or (2) an action that otherwise closes prosecution in the application, and:

☐ attached hereto is the fee set forth under 37 C.F.R. § 1.17(p) for submission of this Information Disclosure Statement under 37 C.F.R. § 1.97(c); OR

☐ Applicant certifies pursuant to 37 C.F.R. § 1.97(e) that:

☐ each item of the information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement;

OR

☐ no item of information contained in this Information Disclosure Statement was cited in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Statement.

Date Mailed: 6/23/2005 ATTY/ADMIN: MR/KE Filing Date: 6/26/2001

Application No: 09/891,793 Docket No: DIBIS-00035US

First Named Inventor: David J. Ecker

Title: A Secondary Structure Defining Database & Methods for Determining Identity and Geographic Origin of an Unknown Bioagent Thereby

Please imprint Patent Office "date stamp" hereon to indicate receipt and return card to addressee

- ☐ _____pages of Specification, Claims, & Abstract
- ☐ _____sheets of formal drawings
- ☐ Provisional Application Cover Sheet
- ☐ New Utility Application Transmittal
- ☐ Fee Transmittal (in duplicate)
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- ☐ PCT Application
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- ☐ Application Data Sheet
- ☐ Statement to Support Sequence Filing an Submission of Sequence Listing
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☐ on or before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 C.F.R. § 1.113; (2) a notice of allowance under 37 C.F.R. § 1.311; or (3) an action that otherwise closes prosecution in the application, and:

☐ Applicant certifies pursuant to 37 C.F.R. § 1.97(e) that:

☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement;

OR

☐ no item of information contained in this Information Disclosure Statement was cited in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Statement. AND

☐ attached hereto is the fee set forth under 37 C.F.R. § 1.17(p) for submission of this Information Disclosure Statement under 37 C.F.R. § 1.97(c); OR

☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 C.F.R. § 1.97(i), although the information may not be considered by the USPTO.

☒ Enclosed is a copy of each listed reference that may be material to the examination of this application, and for which there may be a duty to disclose.

☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. , filed on , and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 C.F.R. § 1.98(d).

☐ This application was filed after June 30, 2003. Therefore, pursuant to the waiver of the requirements under 37 C.F.R. § 1.98(a)(2)(i), copies of each U.S. Patent and each U.S. Patent Application Publication are not required to be submitted. Copies of any foreign patent documents and non-patent literature cited herein are enclosed.

☐ Each item of information contained in this Information Disclosure Statement was cited in the communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement 37 C.F.R. § 1.704(d).

☒ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement. However, if a fee is due, the Commissioner is hereby authorized to charge Deposit Account No 500252 referencing case number DIBIS-0003US. Consideration of the listed references and favorable action are solicited.

Respectively Submitted,

Mark P. R

Dated: 6/23/05

Mark P. Roach
Registration No.: L0082
Isis Pharmaceuticals, Inc.
1896 Rutherford Road
Carlsbad, CA 92008

PTO/SB/08a (08-03)
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Sheet 1 of 14

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Application Number	09/891,793
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First Named Inventor	David J. Ecker
Art Unit	1645
Examiner Name	Ardin H. Marschel
Attorney Docket Number	DIBIS-0003US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No.[1]	Document Number: Number - Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	US-5,503,980	04-02-1996	Cantor	
	AB	US-5,527,675	06-18-1996	Coull et al.	
	AC	US-5,547,835	08-20-1996	Koster	
	AD	US-5,580,733	12-03-1996	Levis et al.	
	AE	US-5,605,798	02-25-1997	Koster	
	AF	US-5,622,824	04-22-1997	Koster	
	AG	US-5,625,184	04-29-1997	Vestal et al.	
	AH	US-5,686,242	11-11-1997	Bruice et al.	
	AI	US-5,691,141	11-25-1997	Koster	
	AJ	US-5,700,642	12-23-1997	Monforte et al.	
	AK	US-5,770,367	06-23-1998	Southern et al.	
	AL	US-5,777,324	07-07-1998	Hillenkamp	
	AM	US-5,830,655	11-03-1998	Monforte et al.	
	AN	US-5,849,492	12-15-1998	Rogan	
	AO	US-5,851,765	12-22-1998	Koster	
	AP	US-5,864,137	01-26-1999	Becker et al.	
	AQ	US-5,869,242	02-09-1999	Kamb	
	AR	US-5,871,697	02-16-1999	Rothberg et al.	
	AS	US-5,872,003	02-16-1999	Koster	
	AT	US-5,876,936	03-02-1999	Ju	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	AU	DE19802905	07-29-1999	Bruker Daltonik		
	AV	DE19824280	12-02-1999	Bruker Daltonik		
	AW	DE19852167	05-31-2000	Bruker Saxonia		
	AX	EP1138782	10-14-2001	Bruker Saxonia		
	AY	EP1234888	08-28-2002	Bruker Saxonia		
	AZ	EP1333101	08-06-2003	Bruker Daltonik		
	BA	GB2325002	11-11-1998	Bruker Franzen		
	BB	GB2339905	02-09-2000	Bruker Daltonik		
	BC	WO 93/03186	02-18-1993	Hoffman-La Roche		
	BD	WO 94/16101	07-21-1994	Koster		
	BE	WO 94/21822	09-24-1994	Koster		

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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Sheet 2 of 14

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	BF	US-5,928,906	07-27-1999	Koster et al.	
	BG	US-5,965,363	10-12-1999	Monforte et al.	
	BH	US-5,981,176	11-09-1999	Wallace	
	BI	US-5,994,066	11-30-1999	Bergeron et al.	
	BJ	US-6,001,564	12-14-1999	Bergeron et al.	
	BK	US-6,043,031	03-28-2000	Koster et al.	
	BL	US-6,046,005	04-04-2000	Ju et al.	
	BM	US-6,051,378	04-18-2000	Monforte et al.	
	BN	US-6,054,278	04-25-2000	Dodge et al.	
	BO	US-6,074,823	06-13-2000	Koster	
	BP	US-6,090,558	07-18-2000	Butler et al.	
	BQ	US-6,104,028	08-15-2000	Hunter et al.	
	BR	US-6,111,251	08-29-2000	Hillenkamp	
	BS	US-6,140,053	10-31-2000	Koster	
	BT	US-6,146,144	11-14-2000	Fowler et al.	
	BU	US-6,153,389	11-28-2000	Haarer et al.	
	BV	US-6,159,681	12-12-2000	Zebala	
	BW	US-6,197,498	03-06-2001	Koster	
	BX	US-6,218,118	04-17-2001	Sampson et al.	
	BY	US-6,221,587	04-24-2001	Ecker et al.	
	BZ	US-6,221,601	04-24-2001	Koster et al.	

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	CA	WO 96/29431	09-26-1996	Sequenom		
	CB	WO 96/32504	10-17-1996	Trust. of Boston		
	CC	WO 96/37630	11-28-1996	SRI International		
	CD	WO 97/33000	09-12-1997	Genetrace Sys.		
	CE	WO 97/37041	10-09-1997	Sequenom		
	CF	WO 98/03684	01-29-1998	Hybridon Inc.		
	CG	WO 98/12355	03-26-1998	Genetrace Sys.		
	CH	WO 98/14616	04-09-1998	Perseptive Bio.		
	CI	WO 98/15652	04-16-1998	Brax Genomics		
	CJ	WO 98/20020	05-14-1998	Sequenom Inc.		

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	CK	US-6,221,605	04-24-2001	Koster	
	CL	US-6,225,450	05-01-2001	Koster	
	CM	US-6,235,476	05-22-2001	Bergmann et al.	
	CN	US-6,235,478	05-22-2001	Koster	
	CO	US-6,235,480	05-22-2001	Shultz et al.	
	CP	US-6,238,871	05-29-2001	Koster	
	CQ	US-6,238,927	05-29-2001	Abrams et al.	
	CR	US-6,258,538	07-10-2001	Koster et al.	
	CS	US-6,265,716	07-24-2001	Hunter et al.	
	CT	US-6,268,129	07-31-2001	Gut et al.	
	CU	US-6,268,131	07-31-2001	Kang et al.	
	CV	US-6,268,144	07-31-2001	Koster	
	CW	US-6,268,146	07-31-2001	Shultz et al.	
	CX	US-6,270,973	08-07-2001	Lewis et al.	
	CY	US-6,270,974	08-07-2001	Shultz et al.	
	CZ	US-6,277,573	08-21-2001	Koster	
	DA	US-6,277,578	08-21-2001	Shultz et al.	
	DB	US-6,300,076	10-09-2001	Koster	
	DC	US-6,312,893	11-06-2001	Van Ness et al.	
	DE	US-6,312,902	11-06-2001	Shultz et al.	

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	DF	WO 98/20157	05-14-1998	Infectio Diagnost.		
	DG	WO 98/20166	05-14-1998	Sequenom Inc.		
	DH	WO 98/26095	06-18-1998	Genetrace Sys.		
	DI	WO 98/31830	07-23-1998	Brax Genomics		
	DJ	WO 98/40520	09-17-1998	Hybridon Inc.		
	DK	WO 98/54571	12-03-1998	Genetrace Sys.		
	DL	WO 99/05319	02-04-1999	Rapigene, Inc.		
	DM	WO 99/14375	03-25-1999	Genetrace Sys.		
	DN	WO 99/29898	06-17-1999	Max-Planck		
	DO	WO 99/31278	06-24-1999	Sequenom Inc.		

Examiner Signature		Date Considered	

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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	DP	US-6,361,940	03-26-2002	Van Ness et al.	
	DQ	US-6,372,424	04-16-2002	Brow et al.	
	DR	US-6,391,551	05-21-2002	Shultz et al.	
	DS	US-6,423,966	07-23-2002	Hillenkamp et al.	
	DT	US-6,428,955	08-06-2002	Koster et al.	
	DU	US-6,432,651	08-13-2002	Hughes et al.	
	DV	US-6,436,635	08-20-2002	Fu et al.	
	DW	US-6,436,640	08-20-2002	Simmons et al.	
	DX	US-6,458,533	10-01-2002	Felder et al.	
	DY	US-6,468,748	10-22-2002	Monforte et al.	
	DZ	US-6,475,736	11-05-2002	Stanton, Jr.	
	EA	US-6,479,239	11-12-2002	Anderson et al.	
	EB	US-6,500,621	12-31-2002	Koster	
	EC	US-6,558,902	05-06-2003	Hillenkamp	
	ED	US-6,566,055	05-20-2003	Monforte et al.	
	EF	US-6,582,916	06-24-2003	Schmidt et al.	
	EG	US-6,589,485	07-08-2003	Koster	
	EF	US-6,602,662	08-05-2003	Koster	
	EG	US-6,613,509	09-02-2003	Chen	
	EH	US-6,623,928	09-23-2003	Van Ness et al.	

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	EI	WO 99/57318	11-11-1999	Sequenom Inc.		
	EJ	WO 01/07648	02-01-2001	Artus Gesell.		
	EK	WO 01/23604	04-05-2001	Infectio Diagnost.		
	EL	WO 01/32930	05-10-2001	California Instit.		
	EM	WO 01/51661	07-19-2001	Amsterdam Support		
	EN	WO 01/57263	08-09-2001	Advion Biosci.		
	EO	WO 02/10186	02-07-2002	California Instit.		
	EP	WO 02/18641	03-07-2002	Sequenom-Gemini		
	EQ	WO 02/21108	03-14-2002	Large Scale		
	ER	WO 02/50307	06-27-2002	Chugai Seiyaku		

Examiner Signature		Date Considered	

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	ES	US-6,682,889	01-27-2004	Wang et al.	
	ET	US-2002/0045178	04-18-2002	Cantor et al.	
	EU	US-2002/0137057	09-26-2002	Wold et al.	
	EV	US-2002/0150903	10-17-2002	Koster	
	EW	US-2002/0150927	10-17-2002	Matray et al.	
	EX	US-2003/0017487	01-23-2003	Xue et al.	
	EY	US-2003/0039976	02-27-2003	Haff	
	EZ	US-2003/0064483	04-03-2003	Shaw et al.	
	FA	US-2003/0073112	04-17-2003	Zhang et al.	
	FB	US-2003/0113745	06-19-2003	Monforte et al.	
	FC	US-2003/0129589	07-10-2003	Koster et al.	
	FD	US-2003/0134312	07-17-2003	Burgoyne	
	FE	US-2003/0148284	08-07-2003	Vision et al.	
	FF	US-2003/0175729	09-18-2003	Van Eijk et al.	
	FG	US-2003/0194699	10-16-2003	Lewis et al.	
	FH	US-2003/0203398	10-30-2003	Bramucci et al.	
	FI	US-2003/0220844	11-27-2003	Marnellos et al.	
	FJ	US-2004/0005555	01-08-2004	Rothman et al.	
	FK	US-2004/0038206	02-26-2004	Zhang et al.	
	FL	US-2004/0038234	02-26-2004	Gut et al.	
	FM	US-2004/0038385	02-26-2004	Langlois et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	FN	WO 02/57491	07-25-2002	Board of Trustees of the Leland		
	FO	WO 02/077278	10-03-2002	Council of Scientific		
	FP	WO 02/099034	12-12-2002	Infectio Diagnost.		
	FQ	WO 03/002750	01-09-2003	High Throughput		
	FR	WO 03/008636	01-30-2003	Infectio Diagnost.		
	FS	WO 03/016546	02-27-2003	Flinders Technol.		
	FT	WO 03/060163	07-24-2003	Keygene N.V.		
	FU	WO 03/088979	10-30-2003	Centre National		
	FV	WO 03/097869	11-27-2003	Con/Cipio GmbH		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6 of 14

Complete If Known	
Application Number	09/891,793
Filing Date	June 26, 2001
First Named Inventor	David J. Ecker
Art Unit	1645
Examiner Name	Ardin H. Marschel
Attorney Docket Number	DIBIS-0003US

NON PATENT LITERATURE DOCUMENTS

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	FW	AASERUD, D. J., et al., "Accurate base composition of double strand DNA by mass spectrometry," *J. Am. Soc. Mass Spectrom.* (1996) 7(12): 1266-1269.	
	FX	BAHRMAND, A. R. et al., "Use of restriction enzyme analysis of amplified DNA coding for the hsp65 gene and polymerase chain reaction with universal primer for rapid differentiation of mycobacterium species in the clinical laboratory," *Scand. J. Infect. Diseases* (1998) 30(5):477-80.	
	FY	BAHRMAND, A. R. et al., "Polymerase chain reaction of bacterial genomes with single universal primer: application to distinguishing mycobacteria species," *Mol. Cell. Probes* (1996) 10(2): 117-22.	
	FZ	BASTIA, T. et al., "Organelle DNA analysis of Solanum and Brassica somatic hybrids by PCR with 'universal primers'," *Theoretical and Applied Genetics* (2001) 102(8): 1265-1272.	
	GA	BOWEN, J. E. et al., "The native virulence plasmid combination affects the segregational stability of a theta-replicating shuttle vector in Bacillus anthracis var. New Hampshire," *J Appl Microbiol.* (1999) 87(2): 270-8.	
	GB	CAMPBELL, W. P. et al., "Detection of California serogroup Bunyaviruses in tissue culture and mosquito pools by PCR," *J. Virol. Methods* (1996) 57(2): 175-9.	
	GC	CESPEDES, A. et al., "Polymerase chain reaction restriction fragment length polymorphism analysis of a short fragment of the cytochrome b gene for identification of flatfish species," *J. Food Protection* (1998) 61(12): 1684-5.	
	GD	CHEN, C. A. et al., "Universal primers for amplification of mitochondrial small subunit ribosomal RNA-encoding gene in scleractinian corals," *Marine Biotech.* (2000) 2(2): 146-153.	
	GE	CHEN, J. et al., "A universal PCR primer to detect members of the Potyviridae and its use to examine the taxonomic status of several members of the family," *Arch. Virol.* (2001) 146(4): 757-66.	
	GF	CHO, M. et al., "Application of the ribonuclease P (RNase P) RNA gene sequence for phylogenetic analysis of the gene Saccharomonospora," *Internat. J. of Sys. Bacteriol.* (1998) 48: 1223-1230.	
	GG	CONRADS, G. et al., "16S-23S rDNA internal transcribed spacer sequences for analysis of the phylogenetic relationships among species of the genus Fusobacterium," *International Journal of Systematic and Evolutionary Microbiology* (2002) 52(2): 493-499.	
	GH	CORNEL, A. J. et al., "Polymerase chain reaction species diagnostic assay for Anopheles quadrimaculatus cryptic species (Diptera: Culicidae) based on ribosomal DNA ITS2 sequences," *Journal of Medical Entomology* (1996) 33(1): 109-16.	

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Sheet 7 of 14

Complete If Known	
Application Number	09/891,793
Filing Date	June 26, 2001
First Named Inventor	David J. Ecker
Art Unit	1645
Examiner Name	Ardin H. Marschel
Attorney Docket Number	DIBIS-0003US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	GI	CRAIN, P. F. et al., "Applications of mass spectrometry to the characterization of oligonucleotides and nucleic acids," *Curr Opin Biotechnol* (1998) 9(1): 25-34.	
	GJ	DASEN, G. et al., "Classification and identification of Propionibacteria based on 16S ribosomal RNA genes and PCR," *Systematic and Applied Microbiology* (1998) 21(2): 251-259.	
	GK	DEFORCE, D. L. et al., "Analysis of oligonucleotides by ESI-MS," *Advances in Chromatography* (2000) 40: 539-566.	
	GL	DEFORCE, D. L. D. et al., "Characterization of DNA Oligonucleotides by Coupling of Capillary Zone Electrophoresis to Electrospray Ionization Q-TOF Mass Spectrometry," *Anal. Chem.* (1998) 70(14): 3060-3068.	
	GM	DEMESURE, B. et al., "A set of universal primers for amplification of polymorphic non-coding regions of mitochondrial and chloroplast DNA in plants," *Mol. Ecology* (1995) 4(1): 129-31.	
	GN	DINAUER, D. M. et al., "Sequence-based typing of HLA class II DQB1," *Tissue Antigens* (2000) 55(4): 364-368.	
	GO	DUBERNET, S. et al., "A PCR-based method for identification of Lactobacilli at the genus level," *FEMS Microbiology Letters* (2002) 214(2): 271-275.	
	GP	FIGUEIREDO, L. T. M. et al., "Identification of Brazilian flaviviruses by a simplified reverse transcription-polymerase chain reaction method using Flavivirus universal primers," *American Journal of Tropical Medicine and Hygiene* (1998) 59(3): 357-362.	
	GQ	FLORA, J. et al., "Dual-micro-ESI source for precise mass determination on a quadrupole time-of-flight mass spectrometer for genomic and proteomic applications," *Anal. Bioanal. Chem.* (2002) 373(7): 538-46.	
	GR	FOX, A., "Report of the "Bioterrorism Workshop." Duke University Thomas Center on April 2-4, 2002, organized by US Army Research Office," *J. Microbiol. Methods* (2002) 51(3): 247-54.	
	GS	FOX, A. et al., "Identification and detection of bacteria: electrospray MS-MS versus derivatization/GC-MS," *Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research* (1996) Aberdeen Proving Ground, Md., Nov. 15-18, 1994: p. 39-44.	
	GT	FOX, K. F. et al., "Identification of Brucella by Ribosomal-spacer-region PCR and differentiation of, Brucella canis from other Brucella spp. pathogenic for humans by carbohydrate profiles," *J. Clin. Microbiol.* (1998) 36(11): 3217-3222.	

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Sheet 8 of 14

Complete If Known	
Application Number	09/891,793
Filing Date	June 26, 2001
First Named Inventor	David J. Ecker
Art Unit	1645
Examiner Name	Ardin H. Marschel
Attorney Docket Number	DIBIS-0003US

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	GU	GRIFFEY, R. H. et al., "Detection of base pair mismatches in duplex DNA and RNA oligonucleotides using electrospray mass spectrometry," *Proceedings of SPIE-The International Society for Optical Engineering* (1997) 2985(Ultrasensitive Biochemical Diagnostics II): 82-86.	
	GV	GRIFFIN, T. J. et al., "Direct genetic analysis by matrix-assisted laser desorption/ionization mass spectrometry," *Proc. Natl. Acad. Sci. USA* (1999) 96(11): 6301-6306.	
	GW	HANNIS, J. C. et al., "Accurate characterization of the tyrosine hydroxylase forensic allele 9.3 through development of electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," *Rapid Communications in Mass Spectrometry* (1999) 13(10): 954-62.	
	GX	HANNIS, J. C, et al, "Genotyping short tandem repeats using flow injection and electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," *Rapid Communications in Mass Spectrometry* (2001) 15(5): 348-350.	
	GY	HANNIS, J. C. et al., "Detection of double-stranded PCR amplicons at the attomole level electrosprayed from low nanomolar solutions using FT-ICR mass spectrometry," *Fresenius Journal of Analytical Chemistry* (2001) 369(3-4): 246-51.	
	GZ	HANNIS, J. C. et al., "Genotyping complex short tandem repeats using electrospray ionization Fourier transform ion cyclotron resonance multistage mass spectrometry," *Proceedings of SPIE-The International Society for Optical Engineering* (2000) 3926: 36-47.	
	HA	HAYASHI, H. et al., "Phylogenetic analysis of the human gut microbiota using 16S rDNA clone libraries and strictly anaerobic culture-based methods," *Microbiol. Immunol.* (2002) 46(8): 535-48.	
	HB	HENCHAL, E. A. et al., "Sensitivity and specificity of a universal primer set for the rapid diagnosis of dengue virus infections by polymerase chain reaction and nucleic acid hybridization," *American Journal of Tropical Medicine and Hygiene* (1991) 45(4): 418-28.	
	HC	HERRMANN, B. et al., "Differentiation of *Chlamydia* spp. by Sequence Determination and Restriction Endonuclease Cleavage of RNase P RNA Genes," *J. Clin. Microbiol.* (1996) 34(8): 1897-1902.	
	HD	HIGGINS, G. S. et al., "Competitive oligonucleotide single-base extension combined with mass spectrometric detection for mutation screening," *BioTechniques* (1997) 23(4): 710-714.	
	HE	HOFFMANN, E. et al., "Universal primer set for the full-length amplification of all influenza A viruses," *Archives of Virology* (2001) 146(12): 2275-2289.	
	HF	HONDA, K. et al., "Universal method of hypersensitive nested PCR toward forensic DNA typing," *International Congress Series* (1998) 7: 28-30.	

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Sheet 9 of 14

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Application Number	09/891,793
Filing Date	June 26, 2001
First Named Inventor	David J. Ecker
Art Unit	1645
Examiner Name	Ardin H. Marschel
Attorney Docket Number	DIBIS-0003US

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	HG	HURST, G. B. et al., "Detection of Bacterial DNA Polymerase Chain Reation Products by Matrix-assisted Laser Desorption/Ionization Mass Spectrometry," *Rapid Commun. Mass Spectrom.* (1996) 10: 377-382.	
	HH	HURST, G. B. et al., "MALDI-TOF analysis of polymerase chain reaction products from methanotrophic bacteria," *Anal. Chem,* (1998) 70(13): 2693-2698.	
	HI	ISOLA, N. R. et al., "MALDI-TOF mass spectrometric method for detection of hybridized DNA oligomers," *Analytical Chemistry* (2001) 73(9): 2126-2131.	
	HJ	JANKOWSKI, K. et al., "Mass spectrometry of DNA. Part 2. Quantitative estimation of base composition," *European Journal of Mass Spectrometry in Biochemistry* (1980) 1(1): 45-52.	
	HK	KAGEYAMA, A. et al., "Rapid detection of human fecal Eubacterium species and related genera by nested PCR method," *Microbiology and Immunology* (2001) 45(4): 315-318.	
	HL	KRAHMER, M. T. et al., "Electrospray quadrupole mass spectrometry analysis of model oligonucleotides and polymerase chain reaction products: determination of base substitutions, nucleotide additions/deletions, and chemical modifications," *Anal. Chem.* (1999) 71(14): 2893-900.	
	HM	KRAHMER, M. T. et al., "MS for identification of single nucleotide polymorphisms and MS/MS for discrimination of isomeric PCR products," *Anal. Chem.* (2000) 72(17): 4033-4040.	
	HN	LACROIX, J.-M. et al., "PCR-based technique for the detection of bacteria in semen and urine," *J. Microbiol. Methods* (1996) 26: 61-71.	
	HO	LEIF, H. et al., "Isolation and characterization of the proton-translocating NADH: ubiquinone oxidoreductase from Escherichia coli," *Eur. J. Biochem.* (1995) 230(2): 538-548.	
	HP	LI, J. et al., "Single nucleotide polymorphism determination using primer extension and time-of-flight mass spectrometry," *Electrophoresis* (1999) 20(6): 1258-1265.	
	HQ	LITTLE, D. P. et al., "Rapid Sequencing of Oligonucleotides by High-Resolution Mass Spectrometry," *J. Am. Chem. Soc.* (1994) 116(11): 4893-4897.	
	HR	LIU, C. et al., "Improving the microdialysis procedure for electrospray ionization mass spectrometry of biological samples," *Journal of Mass Spectrometry* (1997) 32(4): 425-431.	
	HS	LIU, Y. et al., "An unusual gene arrangement for the putative chromosome replication origin and circadian expression of *dnaN* in *Synechococcus* sp. strain PCC 7942," *Gene* (1996) 172(1): 105-109.	

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Application Number	09/891,793
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	HT	LOAKES, D. et al., "Nitroindoles as Universal Bases," *Nucleosides Nucleotides* (1995) 14:1001-1003.	
	HU	LOVE, B. C. et al., "Cloning and sequence of the *groESL* heat-shock operon of *Pasteurella multocida*," *Gene* (1995) 166(1): 179-180.	
	HV	MAIWALD, M. et al., "Characterization of contaminating DNA in Taq polymerase which occurs during amplification with a primer set for Legionella 5S ribosomal RNA," *Mol. Cell. Probes* (1994) 8(1): 11-14.	
	HW	MANGRUM, J. et al., "Solution composition and thermal denaturation for the production of single-stranded PCR amplicons: piperidine-induced destabilization of the DNA duplex?" *J. Am. Soc. Mass Spectrom.* (2002) 13(3): 232-40.	
	HX	MARTEMYANOV, K. A. et al., "Extremely Thermostable Elongation Factor G from *Aquifex aeolicus:* Cloning, Expression, Purification, and Characterization in a Heterologous Translation System," *Protein Expr. Purif.* (2000) 18(3): 257-261.	
	HY	MCCABE, K. M. et al., "Bacterial Species Identification after DNA Amplification with a Universal Primer Pair," *Molecular Genetics and Metabolism* (1999) 66(3): 205-211.	
	HZ	MEIYU, F. et al., "Detection of flaviviruses by reverse transcriptase-polymerase chain reaction with the universal primer set," *Microbiology and Immunology* (1997) 41(3): 209-13.	
	IA	MESSMER, T. O. et al., "Discrimination of Streptococcus pneumoniae from other upper respiratory tract streptococci by arbitrarily primed PCR," *Clin. Biochem.* (1995) 28(6):567-72.	
	IB	MORICCA, S. et al., "Detection of Fusarium oxysporum f.sp. vasinfectum in cotton tissue by polymerase chain reaction," *Plant Pathology* (1998) 47(4):486-494.	
	IC	MORSE, R. et al., "Nucleotide Sequence of Part of the *ropC* Gene Encoding the β' Subunit of DNA-Dependent RNA Polymerase from some Gram-Positive Bacteria and Comparative Amino Acid Sequence Analysis," *System Appl. Microbiol.* (1996) 19: 150-157.	
	ID	MUDDIMAN, D. C. et al., "Length and base composition of PCR-amplified nucleic acids using mass measurements from electrospray ionization mass spectrometry," *Anal. Chem.* (1997) 69(8): 1543-1549.	
	IE	MUDDIMAN, D. C. et al., "Application of secondary ion and matrix-assisted laser desorption-ionization time-of-flight mass spectrometry for the quantitative analysis of biological molecules," *Mass Spectrometry Reviews* (1996) 14(6): 383-429.	

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	IF	MUDDIMAN, D. C. et al., "Important aspects concerning the quantification of biomolecules by time-of-flight secondary-ion mass spectrometry," *Applied Spectroscopy* (1996) 50(2): 161-166.	
	IG	MUDDIMAN, D. C. et al., "Precise mass measurement of a double-stranded 500 base-pair (309 kDa) polymerase chain reaction product by negative ion electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," *Rapid Commun. Mass Spectrom.* (1999) 13(12): 1201-1204.	
	IH	MUDDIMAN, D. C. et al., "Sequencing and characterization of larger oligonucleotides by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," *Rev. Anal. Chem.* (1998) 17(1): p. 1-68.	
	II	MUDDIMAN, D. C. et al., "Characterization of PCR products from bacilli using electrospray ionization FTICR mass spectrometry," *Analytical Chemistry* (1996) 68(21): 3705-12.	
	IJ	MUHAMMAD, W. T. et al., "Electrospray ionization quadrupole time-of-flight mass spectrometry and quadrupole mass spectrometry for genotyping single nucleotide substitutions in intact polymerase chain reaction products in K-ras and p53," *Rapid Commun. Mass Spectrom.* (2002) 16(24): 2278-85.	
	IK	MUSHEGIAN, A. R. et al., "A minimal gene set for cellular life derived by comparison of complete bacterial genomes," *Proc. Natl. Acad. Sci. USA* (1996) 93(19): 10268-10273.	
	IL	NAGPAL, M. L. et al., "Utility of 16S-23S rNA spacer region methodology: how similar are interspace regions within a genome and between strains for closely related organisms?" *J. Microbiol. Methods* (1998) 33(s): 211-219.	
	IM	NAUMOV, G. I. et al., "Discrimination of the Soil Yeast Species *Williopsis saturnus* and *Williopsis suaveolens* by the Polymerase Chain Reaction with the Universal Primer N21," *Microbiology* (Moscow)(Translation of Mikrobiologiya) (2000) 69(2): 280-285.	
	IN	NULL, A. P. et al., "Evaluation of sample preparation techniques for mass measurements of PCR products using ESI-FT-ICR mass spectrometry," *J. Am. Soc. Mass Spectrom.* (2002) 13(4): 338-344.	
	IO	NULL, A. P. et al., "Preparation of single-stranded PCR products for electrospray ionization mass spectrometry using the DNA repair enzyme lambda exonuclease," *Analyst* (2000) 125(4): 619-626.	
	IP	NULL, A. P. et al., "Genotyping of Simple and Compound Short Tandem Repeat Loci Using Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry," *Anal. Chem.* (2001) 73(18): 4514-4521.	
	IQ	NULL, A. P. et al., "Perspectives on the use of electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry for short tandem repeat genotyping in the post-genome era," *Journal of Mass Spectrometry* (2001) 36(6): 589-606.	

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Sheet 12 of 14

Complete If Known	
Application Number	09/891,793
Filing Date	June 26, 2001
First Named Inventor	David J. Ecker
Art Unit	1645
Examiner Name	Ardin H. Marschel
Attorney Docket Number	DIBIS-0003US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	IR	PENG, X. et al., "Rapid detection of Shigella species in environmental sewage by an immunocapture PCR with universal primers," *Appl. Environ. Microbiol.* (2002) 68(5): 2580-3.	
	IS	POMERANTZ, S. C. et al., "Determination of oligonucleotide composition from mass spectrometrically measured molecular weight," *J. Am. Soc. Mass Spectrom.* (1993) 4(3): 204-9.	
	IT	REID, S. M. et al., "Primary diagnosis of foot-and-mouth disease by reverse transcription polymerase chain reaction," *Journal of Virological Methods* (2000) 89(1-2): 167-76.	
	IU	REILLY, K. et al., "Design and use of 16S ribosomal DNA-directed primers in competitive PCRs to enumerate proteolytic bacteria in the rumen," *Microbiol. Ecol.* (2002) 43(2): 259-70.	
	IV	ROSS, P. L. et al., "Analysis of DNA fragments from conventional and microfabricated PCR devices using delayed extraction MALDI-TOF mass spectrometry," *Anal. Chem.* (1998) 70(10): 2067-73.	
	IW	ROSS, P. L. et al., "Discrimination of Single-Nucleotide Polymorphisms in Human DNA Using Peptide Nucleic Acid Probes Detected by MALDI-TOF Mass Spectrometry," *Anal. Chem.* (1997) 69(20): 4197-4202.	
	IX	SALA, M. et al., "Ambiguous base pairing of the purine analogue 1-(2-deoxy-beta-D-ribofuranosyl)-imidazole-4-carboxamide during PCR," *Nucleic Acids Res.* (1996) 24(17): 3302-6.	
	IY	SCHRAM, K. H., "Mass Spectrometry of Nucleic Acid Components," *Biomedical Applications of Mass Spectrometry* (1990) 34: 203-280.	
	IZ	SCHULTZ, J. C. et al., "Polymerase chain reaction products analyzed by charge detection mass spectrometry," *Rapid Communications in Mass Spectrometry* (1999) 13(1): 15-20.	
	JA	SESHADRI, R. et al., "Differential Expression of Translational Elements by Life Cycle Variants of *Coxiella burnetii*," *Infect. Immun.* (1999) 67(11): 6026-6033.	
	JB	SHAVER, Y. J. et al., "Variation in 16S-23S rRNA intergenic spacer regions among Bacillus subtilis 168 isolates," *Molecular Microbiology* (2001) 42(1): 101-109.	
	JC	SHAVER, Y. J. et al., "Restriction fragment length polymorphism of rRNA operons for discrimination and intergenic spacer sequences for cataloging of Bacillus subtilis sub-groups," *J. Microbiol., Methods* (2002) 50(2): 215-23.	
	JD	SRINIVASAN, J. R. et al., "Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry as a rapid screening method to detect mutations causing Tay-Sachs disease," *Rapid Communications in Mass Spectrometry* (1997) 11(10): 1144-1150.	

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Examiner Name	Ardin H. Marschel
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	JE	STEFFENS, D. L. et al., "Sequence analysis of mitochondrial DNA hypervariable regions using infrared fluorescence detection," *BioTechniques* (1998) 24(6): 1044-1046.	
	JF	TAKAHASHI, H. et al., "Characterization of *gyrA*, *gyrB*, *grlA* and *grlB* mutations in fluoroquinolone-resistant clinical isolates of Staphylococcus aureus," *J. Antimicrob. Chemother.* (1998) 41(1): 49-57.	
	JG	TONG, J. et al., "Ligation reaction specificities of an NAD^+-dependent DNA ligase from the hyperthermophile *Aquifex aeolicus*," *Nucleic Acids Res.* (2000) 28(6): 1447-1454.	
	JH	VAN AERSCHOT, A. et al., "In search of acyclic analogues as universal nucleosides in degenerate probes," *Nucleosides & Nucleotides* (1995) 14(3-5): 1053-1056.	
	JI	VAN BAAR, B. L., "Characterisation of bacteria by matrix-assisted laser desorption/ionisation and electrospray mass spectrometry," *FEMS Microbiol. Rev.* (2000) 24(2): 193-219.	
	JJ	VAN CAMP, G. et al., "Amplification and sequencing of variable regions in bacterial 23S ribosomal RNA genes with conserved primer sequences," *Curr. Microbiol.* (1993) 27(3): 147-51.	
	JK	WALTERS, J. J. et al., "Genotyping single nucleotide polymorphisms using intact polymerase chain reaction products by electrospray quadrupole mass spectrometry," *Rapid Commun. Mass Spectrom.* (2001) 15(18): 1752-1759.	
	JL	WIDJOJOATMODJO, M. N. et al., "Rapid identification of bacteria by PCR-single-strand conformation polymorphism," *J. Clin. Microbiol.* (1994) 32(12): 3002-3007.	
	JM	WOLTER, A. et al., "Negative Ion FAB Mass Spectrometric Analysis of Non-Charged Key Intermediates in Oligonucleotide Synthesis: Rapid Identification of Partially Protected Dinucleoside Monophosphates," *Biomed. Environ. Mass Spectrom.* (1987) 14: 111-116.	
	JN	WOO, T. H. S. et al., "Identification of Leptospira inadai by continuous monitoring of fluorescence during rapid cycle PCR," *Systematic and Applied Microbiology* (1998) 21(1): 89-96.	
	JO	WUNSCHEL, D. et al., "Discrimination among the B. cereus group, in comparison to B. subtilis, by structural carbohydrate profiles and ribosomal RNA spacer region PCR," *Systematic and Applied Microbiology* (1995) 17(4): 625-35.	
	JP	WUNSCHEL, D. S. et al., "Analysis of double-stranded polymerase chain reaction products from the Bacillus cereus group by electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry," *Rapid Communications in Mass Spectrometry* (1996) 10(1): 29-35.	

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	JQ	WUNSCHEL, D. S. et al., "Heterogeneity in Bacillus cereus PCR products detected by ESI-FTICR mass spectrometry," *Analytical Chemistry* (1998) 70(6): 1203-1207.	
	JR	WUNSCHEL, D. S. et al., "Mass spectrometric characterization of DNA for molecular biological applications: Advances using MALDI and ESI," *Advances in Mass Spectrometry* (1998) 14: 377-406.	
	JS	YASUI, T. et al., "A specific oligonucleotide primer for the rapid detection of Lactobacillus lindneri by polymerase chain reaction," *Can. J. Microbiol.* (1997) 43(2): 157-163.	

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